

## **ABSTRACT OF THE DISCLOSURE**

The present invention is embodied in a system and method for maintaining a background model of an image sequence by processing on

5 multiple spatial scales. These multiple spatial scales include a pixel scale, a regional scale and a frame scale. The image sequence undergoes pixel processing that determines a current background model and provides an initial pixel assignment as either a background or a foreground pixel. Region

10 processing further refines the initial pixel assignments by considering relationships between pixels and possibly reassigning pixels. Frame processing further refines the current background model by determining whether a substantial change has occurred in the actual background and, if so, providing a more accurate background model.